

CLAIMS

1. An organic EL display device, which includes a first and second organic EL display panels, selects either one of the organic EL display panels according to a selection signal and drives the selected organic EL display panel to perform a predetermined display, comprising

a plurality of current drive circuits having output pins connected commonly to data lines or column pins of the first and second organic EL panels, for outputting drive currents for driving organic EL display elements from the output pins to the data lines or the column pins connected to the output pins,

a reset circuit connected to the output pins for resetting terminal voltages of the organic EL display elements to a predetermined voltage in a reset period, and

a first and second scan circuits provided correspondingly to the first and second organic EL display panels for scanning scan lines in a row direction or a vertical direction of the first and second organic EL panels,

wherein one of the first and second scan circuits corresponding to one of the organic EL panels, which is to be driven, is operated in the reset period according to the selection signal and an operation of the other scan circuit is stopped or the scan operation of the other scan circuit itself is stopped for driving said one organic EL panel and ceasing the other organic EL panel.

2. The organic EL display device as claimed in claim 1, wherein the reset period is determined by a timing control signal or a reset control signal for dividing the display period corresponding to the scan period of one horizontal line from the reset period corresponding to a retrace period of

horizontal scan, the reset circuit performs a reset operation according to one of a signal corresponding to the timing control signal, the reset control signal and a reset signal in the reset period.

3. The organic EL display device as claimed in claim 2, wherein the first and second organic EL display panels are of the passive matrix type, the output pins are connected to the column pins of the first and second organic EL display panels, respectively, and a start of scan operation of the scan circuit for one of the first and second organic EL display panels is after a scan operation of the other scan circuit is stopped or the scan operation of the other scan circuit itself is stopped.

4. The organic EL display device as claimed in claim 3, wherein the stopping of the scan operation of the scan circuit of the other organic EL display panel or the stopping of the scan operation itself is performed after the terminal voltage of the organic EL display element is reset by the reset circuit and all of the output terminals of the scan circuit of the other organic EL display panel, to which the scan lines of the other organic EL display panel are connected, are set to high impedance.

5. The organic EL display device as claimed in claim 4, further comprising a switch, which performs an ON/OFF operation according to an open/close operation of a cover of a device having the organic EL display device, wherein one of the first and second organic EL display panels is a main display panel and the other organic EL display panel is a sub-display panel and the selection signal is generated correspondingly to ON/OFF of the switch.

6. The organic EL display device as claimed in claim 5,

wherein the scan line corresponds to one horizontal line and the switch performs ON/OFF operation correspondingly to a signal from an optical sensor provided in the device.

7. The organic EL display device as claimed in claim 1, wherein the first and second organic EL display panels are of the passive matrix type, the output pins are connected to column pins of the first and second organic EL display panels, respectively, and first diodes for preventing reverse current flow are provided between a column line connected to the column pins of the first and second organic EL display panels and the column pins, respectively.

8. The organic EL display device as claimed in claim 7, wherein the first and second organic EL display panels include connection lines in row direction for connecting cathodes of the first diodes, respectively, second diodes inserted between the cathode sides of the first diodes and the connection lines in forward direction corresponding to the first diodes are provided, the connection lines of the first and second organic EL display panels are selectively connected to a first potential line or a second potential line, the first potential is to reverse biasing the second diodes and the second potential is to forward biasing the second diodes.

9. The organic EL display device as claimed in claim 8, wherein the connection lines of the first and second organic EL display panels are connected to the first or second potential line through buffer amplifiers, respectively, the second diodes of the one organic EL display panel are connected to the first potential line of the one organic EL display panel, the second diodes of the other organic EL display panel are connected to the second potential line of the other organic EL

display panel and all of the output terminals of the scan circuit of the other organic EL display panel, to which the scan lines of the other organic EL display panel are connected, are set to high impedance.

10. The organic EL display device as claimed in claim 9, wherein voltages of the first potential line and the second potential line are lower than a voltage, which is the lowest voltage of the respective column pins generated by the drive currents supplied to the respective column pins reduced by a sum of the forward drop voltage of the first diodes and the forward drop voltage of the second diodes.

11. The organic EL display device as claimed in claim 9, wherein the scan operation of the scan circuit of one of the first and second organic EL display panels is started after the scan operation of the other scan circuit is stopped or the operation of the other scan circuit itself is stopped.

12. The organic EL display device as claimed in claim 11, wherein the stoppage of the scan operation of the other scan circuit or the stoppage of the scan operation of the other scan circuit itself is performed after the resetting of the terminal voltage of the organic EL display elements by the reset circuit and all of the output terminals of the scan circuit of the other organic EL display panel, to which the scan lines of the other organic EL display panel are connected, are set to high impedance.